

ABSTRACT OF THE DISCLOSURE

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5 A transmission diversity detection system can detect presence or absence of a STTD transmission diversity by simply arithmetic operation. The transmission diversity detection circuit notifies presence or absence of a transmission diversity of spread spectrum communication by modulation of SCH. The transmission diversity detection circuit includes arithmetic means for calculating a calculated value of  $C_{2n,0} \times S_{2n,0}^* + C_{2n,0}^* \times S_{2n,0} + C_{2n,1} \times S_{2n,1}^* + C_{2n,1}^* \times S_{2n,1}$ , in first and second symbols in a predetermined number of series of slots with respect to a reception signal, taking a primary CPICH symbol with respect to the first symbol as  $C_{2n,0}$ , a SCH symbol with respect to the first symbol as  $S_{2n,0}$ , a primary CPICH symbol with respect to the second symbol as  $C_{2n,1}$  and a SCH symbol with respect to the second symbol as  $S_{2n,1}$ , taking a complex conjugate of the primary CPICH symbol  $C_{2n,0}$  as  $C_{2n,0}^*$ , a complex conjugate of SCH symbol  $S_{2n,0}$  as  $S_{2n,0}^*$ , a complex conjugate of the primary CPICH symbol  $C_{2n,1}$  as  $C_{2n,1}^*$  and a complex conjugate of the SCH symbol  $S_{2n,1}$  as  $S_{2n,1}^*$  and judgment means for making judgment whether transmission diversity is present or not depending upon positive or negative of the calculated value.

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